Effect of Web-based Mental Health Intake System on Parent/Provider Satisfaction

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Defining WAMHIS

- A web-based clinical data collection system
- Allows parents to provide information securely and confidentially from their homes and/or work via the Internet; replaces paper-based forms
- Allows clinicians to securely complete intake assessment reports online
- Data feeds into a database via secure web-based forms using 128-bit encryption and secure-socket technologies
- Application is HIPAA compliant

Research Study Methods

- At the time a parent schedules an intake appointment, he/she receives instructions to access and enter the system
- The parent completes the intake form and additional behavior checklists on the Internet and submits it to the database

Research Study Design

(Reviewed and approved by WRAMC IRB)

- 90 parents of child/adolescent patients assigned to 3 groups (sequentially)

Group 1 – Parents complete WAMHIS forms at home prior to the appointment

Group 2 – Parents complete WAMHIS forms in the clinic at the time of the appointment using a clinic computer

Group 3 – Parents complete traditional paper forms in the clinic at the time of the appointment

- Parent satisfaction surveys given after forms completed
- Assigned providers complete surveys on experiences in clinical work with the three groups and overall impression of WAMHIS

Measurement Tools Used for Research

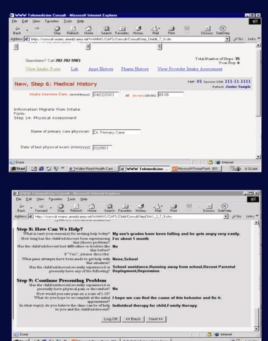
Parents: (n = 30 in each group)

1. Satisfaction with the Patient Information Forms
   - Different versions depending on whether *paper* forms or *WAMHIS* completed by parent
   - Derived from the CSUQ (Computer System Usability Questionnaire), an IBM Computer Usability Satisfaction Questionnaires (Lewis, 1995)

Providers: (total of 10 providers)

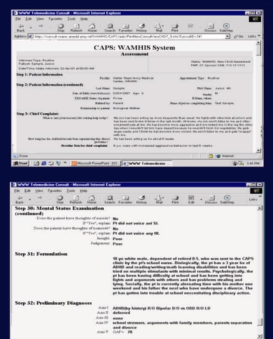
1. Satisfaction with Intake system (after each intake interview)
2. Satisfaction with Report Writer (after each use of report writer)
3. Satisfaction After Initial Use (completed once)
4. Satisfaction After Final Use (completed once)

Clinician View of Completed Parent Intake Form

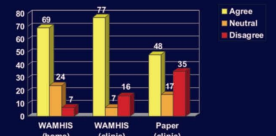


Current and/or Potential WAMHIS Sites in the NARMC

Clinician View of Provider Intake Assessment Report

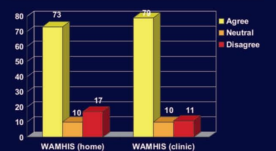


Parent Satisfaction



"Overall, I am satisfied with the method I used to complete the paperwork."

Parent Perception of WAMHIS Security

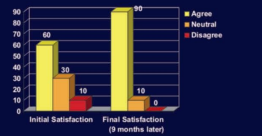


"Overall, I am confident that WAMHIS is secure."

Strengths of WAMHIS (Parent Perspective)

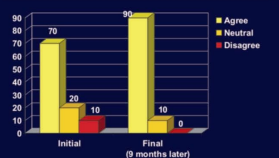
- Reduced waiting time to see provider
- Increased access to intake forms via Internet
- Both parents/guardians able to complete online forms together: beneficial when one parent/guardian unable to attend the intake appointment
- Easier than paper-based forms; ability to take more time to fill out paperwork without rushing

Provider Satisfaction



"Overall, I am satisfied with WAMHIS."

Provider Perception of WAMHIS Security



"Overall, I am confident that WAMHIS is secure."

Strengths of WAMHIS (Provider Perspective)

- More time efficient
- Easy to use; user-friendly
- Providers off-site able to access patient data and draft patient assessments via Internet; enhances **Telepsychiatry** services
- Efficiency using WAMHIS increased with increased use and practice
- Ability to review patient clinical information prior to appointment

Initial Weaknesses / Limitations of WAMHIS for Providers

- Slow server and unpredictable server outage
  Solution: Database relocated onto new server and server reboot time changed to 4 a.m.
- Automatic logoff function too brief
  Solution: Changed from 10 min. to 60 min. per step
- Difficult to distinguish information on printouts
  Solution: Modified and adjusted (i.e., font size, margins)
- Main Menu functions and design complicated
  Solution: Simplified Main Menu options

Conclusions

- Overall high parent satisfaction with WAMHIS
- Parental investment in completion of WAMHIS may improve appointment compliance
- WAMHIS was helpful to clinicians esp. when server issues resolved
- Clinicians had greater opportunity and time to review clinical information with WAMHIS
- Important to continue to modify system to address parent and clinician feedback
- Potential to use WAMHIS as a component of a health e-record

Poster designed by Matthew Grimm, NARMC Telemedicine Directorate, Walter Reed Army Medical Center